

INTERNATIONAL SEARCH REPORT

ional Application No
GB2004/002763

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E21B43/10 E21B29/10 E21B41/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/185274 A1 (SIMPSON NEIL A A ET AL) 12 December 2002 (2002-12-12) paragraphs '0006!, '0007!, '0009! – '0012!, '0025! – '0028!, '0030! – '0034!; claim 7 figures 1–9	1–6, 8–13, 17, 18, 21–23, 26, 30
Y	US 4 624 306 A (PALMER C DALE ET AL) 25 November 1986 (1986-11-25) abstract	14–16, 19, 20, 24, 25
A	—/—	7

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

16 November 2004

23.11.2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/050360 A1 (STEWART R BRUCE ET AL) 2 May 2002 (2002-05-02) figures 3,6,9c,10c-10f -----	28,29
Y		19,20,25
A	US 2002/092648 A1 (HACKWORTH MATTHEW R ET AL) 18 July 2002 (2002-07-18) abstract -----	23
X	WO 01/04535 A (STEWART R BRUCE ; COOK ROBERT LANCE (US); ENVENTURE GLOBAL TECHNOLOGY) 18 January 2001 (2001-01-18) figures 10d-10g -----	28
A		19,20,25
Y	WO 01/33037 A (STEWART R BRUCE ; COOK ROBERT LANCE (US); COWAN KENNETH MICHAEL (US);) 10 May 2001 (2001-05-10) figures 3,4 -----	19,20,25
X	WO 00/77431 A (FRIEDMAN MARK M ; STEWART R BRUCE (NL); SHELL INT RESEARCH (NL); BRISC) 21 December 2000 (2000-12-21) figures 9c,10,11,14,27-30 -----	28
P,A	US 2003/188868 A1 (TRAHAN KEVIN O ET AL) 9 October 2003 (2003-10-09) figures 16,17 -----	28
X	WO 99/13195 A (NOBILEAU PHILIPPE) 18 March 1999 (1999-03-18) page 4, lines 33-38; figures 1-19 -----	27
Y	page 7, lines 28-35; figure 20 -----	14-16,24
X	WO 01/18353 A (E2 TECH LTD ; INNES GARETH (GB); OOSTERLING PETER (NL)) 15 March 2001 (2001-03-15) page 16, lines 7-20; figures 1-3 page 17, line 23 - page 18, line 2 page 18, line 30 - page 19, line 3 page 21, line 28 - page 22, line 1 -----	27
A		14-16,24
X	US 6 142 230 A (WRIGHT RALPH DAVID ET AL) 7 November 2000 (2000-11-07) column 1, lines 17-25; figures 4,5,7,10 column 17, line 66 - column 18, line 34 column 22, line 13 - column 23, line 18 -----	27
X	WO 02/35058 A (METCALFE PAUL DAVID ; HARRALL SIMON JOHN (GB); TILTON FREDERICK T (US)) 2 May 2002 (2002-05-02) page 6, column 24 - page 11, column 18; figures 1-5 -----	27
A		14-16,24
	-/--	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/144822 A1 (HACKWORTH MATTHEW R ET AL) 10 October 2002 (2002-10-10) paragraphs '0043!, '0058!, '0059!, '0062!; figures 4,11-13 -----	27
A	US 3 203 451 A (VINCENT RENIC P) 31 August 1965 (1965-08-31) cited in the application column 10, lines 15-20; figures 1,2,7 -----	14-16,24
A	US 3 203 451 A (VINCENT RENIC P) 31 August 1965 (1965-08-31) cited in the application column 10, lines 15-20; figures 1,2,7 -----	14-16,27
P,A	GB 2 388 858 A (SCHLUMBERGER HOLDINGS) 26 November 2003 (2003-11-26) the whole document -----	27

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13,17,18,21-23,26,30

Expanding a tubular patch

2. claims: 14-16,24,27

Deformed patch

3. claims: 19,20,25,28,29

Patch with section of increased wall thickness

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2002185274	A1	12-12-2002		US 2001045284 A1 US 6325148 B1 US 2001040054 A1 US 2004173355 A1 US 2002079100 A1 AU 772790 B2 AU 1044201 A CA 2393744 A1 EP 1242714 A1 WO 0146551 A1 NO 20022786 A US 2003106698 A1 US 2003188868 A1 US 6598678 B1 US 2002166664 A1 US 2003019638 A1 US 2003062171 A1 AU 5493101 A CA 2406663 A1 EP 1278932 A1 WO 0186111 A1 NO 20024946 A US 2004159466 A1		29-11-2001 04-12-2001 15-11-2001 09-09-2004 27-06-2002 06-05-2004 03-07-2001 28-06-2001 25-09-2002 28-06-2001 14-08-2002 12-06-2003 09-10-2003 29-07-2003 14-11-2002 30-01-2003 03-04-2003 20-11-2001 15-11-2001 29-01-2003 15-11-2001 23-12-2002 19-08-2004
US 4624306	A	25-11-1986		US 4509593 A		09-04-1985
US 2002050360	A1	02-05-2002		US 6640903 B1 US 6497289 B1 US 2003192705 A1 US 2002060068 A1 US 2002060078 A1 US 2002040787 A1 US 2002060069 A1 US 2003098154 A1 US 2003094278 A1 US 2003094279 A1 US 2003121558 A1 US 2003173090 A1 US 6604763 B1 US 6557640 B1 US 2004188099 A1 US 2004182569 A1 US 2004123988 A1 US 2002189816 A1 US 2003056949 A1 US 2004045616 A1 US 2004118574 A1 US 6575240 B1 US 2001047870 A1 US 2001047866 A1 US 2001045289 A1 CA 2300363 A1 GB 2348223 A ,B GB 2385619 A ,B GB 2385620 A ,B GB 2385621 A ,B GB 2385622 A ,B GB 2385623 A ,B		04-11-2003 24-12-2002 16-10-2003 23-05-2002 23-05-2002 11-04-2002 23-05-2002 29-05-2003 22-05-2003 22-05-2003 03-07-2003 18-09-2003 12-08-2003 06-05-2003 30-09-2004 23-09-2004 01-07-2004 19-12-2002 27-03-2003 11-03-2004 24-06-2004 10-06-2003 06-12-2001 29-11-2001 11-09-2000 27-09-2000 27-08-2003 27-08-2003 27-08-2003 27-08-2003

INTERNATIONAL SEARCH REPORT

ional Application No

GB2004/002763

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002050360	A1	NO 20001281 A AU 770008 B2 AU 1641700 A BR 0000923 A CA 2299076 A1 DE 10007547 A1 GB 2348657 A ,B GB 2384800 A ,B GB 2384801 A ,B GB 2384802 A ,B GB 2384803 A ,B GB 2384804 A ,B GB 2384805 A ,B GB 2384806 A ,B GB 2384807 A ,B GB 2384808 A ,B NO 20000924 A AU 771884 B2	12-09-2000 12-02-2004 31-08-2000 26-09-2000 25-08-2000 28-09-2000 11-10-2000 06-08-2003 06-08-2003 06-08-2003 06-08-2003 06-08-2003 06-08-2003 06-08-2003 06-08-2003 28-08-2000 08-04-2004
US 2002092648	A1 18-07-2002	GB 2371063 A ,B NO 20020223 A US 2002092649 A1 US 2002125008 A1 US 2002125009 A1 US 2003221829 A1 US 2004163819 A1 US 2004173350 A1 BR 0200866 A CA 2367859 A1	17-07-2002 17-07-2002 18-07-2002 12-09-2002 12-09-2002 04-12-2003 26-08-2004 09-09-2004 24-09-2002 16-07-2002
WO 0104535	A 18-01-2001	AU 776580 B2 AU 5921400 A CA 2383231 A1 GB 2368865 A ,B GB 2392932 A ,B GB 2392686 A ,B GB 2392691 A ,B NO 20020070 A WO 0104535 A1 US 2002060068 A1	16-09-2004 30-01-2001 18-01-2001 15-05-2002 17-03-2004 10-03-2004 10-03-2004 08-03-2002 18-01-2001 23-05-2002
WO 0133037	A 10-05-2001	AU 1356601 A CA 2389094 A1 GB 2374622 A ,B GB 2390387 A ,B GB 2390628 A ,B NO 20022048 A WO 0133037 A1	14-05-2001 10-05-2001 23-10-2002 07-01-2004 14-01-2004 28-06-2002 10-05-2001
WO 0077431	A 21-12-2000	AU 4141300 A CA 2306656 A1 GB 2361724 A GB 2355738 A ,B GB 2388391 A ,B GB 2388392 A ,B GB 2388393 A ,B GB 2388394 A ,B GB 2388395 A ,B	02-01-2001 26-10-2000 31-10-2001 02-05-2001 12-11-2003 12-11-2003 12-11-2003 12-11-2003 12-11-2003

INTERNATIONAL SEARCH REPORT

International Application No

'GB2004/002763

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 0077431	A		WO 0077431 A2 US 2003098154 A1 US 2003098162 A1 US 2003094278 A1 US 2003024708 A1 US 2003094277 A1 US 2003094279 A1 US 2003121558 A1 US 2003173090 A1 US 2003222455 A1 US 6604763 B1 US 6557640 B1 US 2002060068 A1	21-12-2000 29-05-2003 29-05-2003 22-05-2003 06-02-2003 22-05-2003 22-05-2003 03-07-2003 18-09-2003 04-12-2003 12-08-2003 06-05-2003 23-05-2002
US 2003188868	A1	09-10-2003	US 6598678 B1 US 6325148 B1 AU 1413702 A CA 2428479 A1 EP 1333963 A2 WO 0238343 A2 NO 20032103 A US 2003106698 A1 AU 772790 B2 AU 1044201 A CA 2393744 A1 EP 1242714 A1 WO 0146551 A1 NO 20022786 A US 2002185274 A1 US 2004173355 A1 US 2001045284 A1	29-07-2003 04-12-2001 21-05-2002 16-05-2002 13-08-2003 16-05-2002 14-07-2003 12-06-2003 06-05-2004 03-07-2001 28-06-2001 25-09-2002 28-06-2001 14-08-2002 12-12-2002 09-09-2004 29-11-2001
WO 9913195	A	18-03-1999	US 5979560 A AU 733469 B2 AU 8880598 A CA 2304687 A1 EP 1012441 A1 WO 9913195 A1 NO 20001148 A US 6253852 B1 US 2004168809 A1	09-11-1999 17-05-2001 29-03-1999 18-03-1999 28-06-2000 18-03-1999 07-03-2000 03-07-2001 02-09-2004
WO 0118353	A	15-03-2001	AU 775105 B2 AU 7020700 A CA 2383150 A1 EA 3386 B1 EP 1210501 A1 WO 0118353 A1 JP 2003508660 T NO 20021080 A NZ 517490 A US 6745846 B1	15-07-2004 10-04-2001 15-03-2001 24-04-2003 05-06-2002 15-03-2001 04-03-2003 19-03-2002 27-02-2004 08-06-2004
US 6142230	A	07-11-2000	US 5957195 A US 5785120 A AU 1054400 A CA 2347895 A1 EP 1127210 A1	28-09-1999 28-07-1998 22-05-2000 11-05-2000 29-08-2001

INTERNATIONAL SEARCH REPORT

International Application No

GB2004/002763

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6142230	A	WO 0026502 A1 NO 20011854 A AU 732007 B2 AU 4955097 A CA 2270986 A1 EP 0948703 A2 WO 9821444 A2 NO 991666 A NO 20021323 A	11-05-2000 12-06-2001 12-04-2001 03-06-1998 22-05-1998 13-10-1999 22-05-1998 23-06-1999 23-06-1999
WO 0235058	A 02-05-2002	AU 1072102 A CA 2417487 A1 EP 1328705 A1 WO 0235058 A1 US 2002108756 A1 US 2004159446 A1 US 2004173360 A1	06-05-2002 02-05-2002 23-07-2003 02-05-2002 15-08-2002 19-08-2004 09-09-2004
US 2002144822	A1 10-10-2002	GB 2371574 A ,B GB 2388858 A ,B GB 2388859 A ,B NO 20020351 A US 2004084176 A1 US 2004089454 A1 BR 0200733 A CA 2367650 A1	31-07-2002 26-11-2003 26-11-2003 25-07-2002 06-05-2004 13-05-2004 12-11-2002 24-07-2002
US 3203451	A 31-08-1965	US 3179168 A US 3203483 A	20-04-1965 31-08-1965
GB 2388858	A 26-11-2003	US 2002144822 A1 GB 2388859 A ,B BR 0200733 A CA 2367650 A1 GB 2371574 A ,B NO 20020351 A US 2004084176 A1 US 2004089454 A1	10-10-2002 26-11-2003 12-11-2002 24-07-2002 31-07-2002 25-07-2002 06-05-2004 13-05-2004